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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/490,981	01/24/2000	Melur K. Raghuraman	202269	7881

7590 01/10/2003

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EXAMINER

QURESHI, SHABANA

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 01/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

FN

Office Action Summary	Application No.	Applicant(s)	
	09/490,981	RAGHURAMAN ET AL.	
	Examiner	Art Unit	
	Shabana Qureshi	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 4-6, 10, 15, 17, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Spasojevic (U.S. 6,269,410 B1).

As per claims 4 and 15, Spasojevic teaches a method of tracing a transmission of data over a computer network comprising:

- detecting the presence of an input/output packet requesting a transmission (column 3, line 54 – column 4, line 47, ‘request returns from disk’);
- searching the input/output request packet (column 4, lines 33-47); and
- storing in a trace log an entry representing the transmission (column 5, lines 12-27), wherein the entry comprises the identity of the process (column 4, line 47), and

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wherein the trace log is accessible to determine the volume of data traveling over a network (column 5, line 3 – column 6, line 8).

As per claims 5 and 17, Spasojevic teaches the method of claims 4 and 15 as stated above, further comprising:

- detecting an acknowledgement of transmission (column 4, lines 35-40); and
- in response to the detection of the acknowledgement, storing in the trace log an entry representing the completion of the transmission . Lines 35-40 of column 4 state that the completion time is recorded “when the request returns from the disk”. This shows that completion is acknowledged and recorded.

As per claim 6, Spasojevic teaches a method of tracing a receipt of data from a computer network comprising:

- detecting the presence of a packet for an input/output connection to a port (column 3, line 54 – column 4, line 47, ‘request returns from disk’);
- searching the packet to determine the identity of the process that created the packet (column 4, line 47); and
- in response to the detection of a receipt of data at the port, storing in a trace log an entry representing the receipt of the data (column 5, lines 12-27), wherein the entry comprises the process identification, and wherein the trace log is accessible to determine the volume of the data being transmitted over the network (column 5, line 3 – column 6, line 8).

As per claim 10, Spasojevic teaches a facility for tracing data traffic on a network, the facility comprising:

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- identifying means for identifying a process causing a transmission or receipt of a communication via the network (column 3, line 54 – column 4, line 47); and
- a logging means for logging an event, wherein the event comprises the identification of the process and wherein the logging means is useable to determine the volume of data traveling over the network (column 5, line 3 – column 6, line 8).

As per claim 18, Spasojevic teaches a computer-readable medium having stored thereon computer-executable instructions for performing the steps comprising:

- detecting the presence of a packet for an input/output connection to a port (column 3, line 54 – column 4, line 47, ‘request returns from disk’);
- searching the packet to determine the identity of the process that created the packet (column 4, line 47); and
- in response to the detection of a receipt of data at the port, storing in a trace log an entry representing the receipt of the data (column 5, lines 12-27), wherein the entry comprises the process identification, and wherein the trace log is accessible to determine the volume of the data being transmitted over the network (column 5, line 3 – column 6, line 8).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 7-9, 11-14, 16, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spasojevic ~~X~~ (U.S. 6,269,410 B1).

As per claims 1 and 12, Spasojevic teaches a method of tracing data traffic on a network, the method comprising:

- Detecting a transmission or receipt of data to or from a second device on a network (column 3, line 54 – column 4, line 47, ‘request returns from disk’); and
- In response to the transmission or receipt being detected (column 4, lines 33- 47), recording the transmission or receipt as an entry in a trace log (column 5, lines 12- 27), wherein the trace log is accessible to determine the volume of data traveling over a network (column 5, line 3 – column 6, line 8).

Spasojevic does not explicitly state that these processes occur at the transport layer of a protocol stack, but it would have been obvious to one of ordinary skill in the art at the time the invention was made that the processes occur at the transport layer of a protocol stack of a first device because it is commonly known that the transport layer interfaces with communications to and from other devices.

As per claims 2 and 13, Spasojevic teaches the method of claims 1 and 12 as stated above. Spasojevic does not explicitly state that the protocol stack is a TCP/IP stack. However, it

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would have been obvious to one of ordinary skill in the art that the protocol stack is a TCP/IP stack because it is TCP/IP stack is a commonly known stack used in the art of network communication.

As per claims 3 and 14, Spasojevic teaches the method of claims 1 and 12 as stated above, wherein the detection step further comprises the step of detecting the presence of an input/output packet representing the transmission or receipt (column 3, line 54 – column 4, line 47).

As per claim 7, Spasojevic teaches the method of claim 6. Spasovic does explicitly state that a connection object representing the opening of the port connection by the process by copying the process identification from the connection object into a transport control block associated with the port and in response to the detection of the receipt of data at the port, copying the process identification into the trace log. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the transport control block is fed information from a packet upon arrival at a port, so a connection object is necessary in order to copy the information to a trace log.

As per claim 8, Spasojevic teaches the method of claim 7, but does not specifically state that the process identification is copied from the connection object into the transport control block so that the process identification is contiguous with the rest of the data in the transport control block. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to copy the process id in the same format that the trace log records it so that the logging can smoothly and consistently record the process id.

As per claim 9, Spasojevic teaches the method of claim 8, further comprising:

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- detecting the presence of an input/output request packet indicating that the data receipt is complete (column 3, line 54 – column 4, line 47); and
- in response to the detection of the completion input/output request packet, making an entry representing the receipt of the data into a trace log (column 5, lines 12-27).

As per claim 11, Spasojevic teaches the apparatus of claim 11 as stated above, but does not explicitly state that the identifying means further comprises means for communication with the transport layer of a protocol stack. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the identifying means would communicate with the transport layer of a protocol stack because it is commonly known in the art that the transport layer interfaces with communications to and from other devices.

As per claim 16, Spasojevic teaches the computer-readable medium of claim 15, having further computer-executable instructions for performing the step of detecting the presence of an input/output packet (column 3, line 54 – column 4, line 47). Spasojevic does not explicitly state that these processes occur at the transport layer of a protocol stack, but it would have been obvious to one of ordinary skill in the art at the time the invention was made that the processes occur at the transport layer of a protocol stack of a first device because it is commonly known that the transport layer interfaces with communications to and from other devices.

As per claim 19, Spasojevic teaches the computer-readable medium of claim 18. Spasovic does explicitly state that a connection object representing the opening of the port connection by the process by copying the process identification from the connection object into a transport control block associated with the port and in response to the detection of the receipt of data at the port, copying the process identification into the trace log. However, it would have

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been obvious to one of ordinary skill in the art at the time the invention was made that the transport control block is fed information from a packet upon arrival at a port, so a connection object is necessary in order to copy the information to a trace log.

As per claim 20, Spasojevic teaches the computer-readable medium of claim 18, but does not specifically state that the process identification is copied from the connection object into the transport control block so that the process identification is contiguous with the rest of the data in the transport control block. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to copy the process id in the same format that the trace log records it so that the logging can smoothly and consistently record the process id.

As per claim 21, Spasojevic teaches the computer-readable medium of claim 18, further comprising:

- detecting the presence of an input/output request packet indicating that the data receipt is complete (column 3, line 54 – column 4, line 47); and
- in response to the detection of the completion input/output request packet, making an entry representing the receipt of the data into a trace log (column 5, lines 12-27).

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shabana Qureshi whose telephone number is (703) 308-6118.

The examiner can normally be reached on Monday - Friday, 9:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (703) 305-9648. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

SQ
December 31, 2002


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100